The Limits of Disruption in Banking

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"What does the bank of the future really look like when it is sitting on a legacy system?" asks a software executive. "Does it need to be replaced or can you reengineer it?" IMAGE: iStock

Banking is changing fast — but perhaps not fast enough.

Banks and a slew of startups are looking for ways to disrupt the industry and revolutionize the way people interact with their financial institutions and the way they deal with money.

But behind it all — behind the innovation labs, the push for open APIs, the omnichannel offerings — is an industry that relies on technology that is decades old. The difficulty of updating the systems is enormous and, in some cases, dangerous given the potential for problems. Still, with dated core systems running the industry, fintech players that see banks as partners have their own hunt for scale complicated by custom builds for each bank. In that way, the banks may have unintentionally created a natural defense to the changes fintech companies want to make.

Can the banking industry truly be disrupted in the way technologists, startups and even the banks envision when behind the scenes many banks are running on a programming language from a different era?

"What does the bank of the future really look like when it is sitting on a legacy system?" said Ghela Boskovich, director of global business development for banking software company Zafin. "Does it need to be replaced or can you reengineer it? This isn't a perfect analogy, but can you take the hunting lodge and re-engineer it into the palace of Versailles?"

Being disruption-proof, however, is not a good thing, observers say, because it keeps banks stagnant in a dynamic environment. Also, it gives more opportunity to those startups that believe the revolution is better off without the incumbents, even though banks have the home field advantage because of the trust they've built with their customers.

"The disruptors want to partner with the incumbents. If you look at most customers, they don't really want to go to 25 companies, they'd rather stay with one bank that aggregates it," said Chris

Skinner, chairman of the Financial Services Club networking group in the U.K. and author of "Digital Bank." "The more visionary financial institutions will understand this and see is as the roadmap to the new business model."

The industry understands the legacy systems problem, but appears torn as to the best way to proceed. A slew of conversions has long been predicted, but has never really materialized. Observers say it likely won't, either. Such an undertaking can be expensive even if it saves money in the long run. Given the need to limit disruption to customers who want unfettered access and the gargantuan undertaking of replacing the heart of the bank, it also carries significant reputation risk. For instance, banks have seen their rankings slide on customer satisfaction surveys following core conversions related to acquisitions. Customers are incredibly sensitive to change and, perhaps more importantly, glitches that hinder their ability to transact.

Instead, observers have varying opinions of the likely scenarios.

Some say the best possible option is to create a parallel bank and move over customers methodically. That method would allow the industry to revolutionize its core systems on its terms, but do it in a way that is unlikely to result in big groups of customers headed to Twitter to complain about not being able to access online banking. But in the current environment, where banks are essentially watching every penny they spend, running two banking cores seems like something that only happens in concept.

Like Boscovich describes, some might think they can build the bank of the future on top of the architecture of yesterday. Of course, that is what most do today. Through the use of middleware and other patches, banks have found ways to bridge the old technology with the needs of today.

And there is room for some innovation in a system like that. For instance, a bank may find a part of its business that is removed from the true core business of banking to test out new processes. That could be through the use of a distributed ledger, a technology that allows lightning-fast settlement and transparent, global record-keeping in cryptocurrency systems like Bitcoin and Ripple. At this point, most global banks are exploring ways to use cryptocurrencies, distributed ledgers or the blockchain.

"Perhaps it is some intra-bank activity where some version of a distributed ledger is going to be first tested," said Pascal Bouvier, general partner of Route 66 Ventures, a fintech-focused investor. "There is a lot of opportunity to innovate in an area of the banking system where there is less friction; something that is orphaned or easy to peel off."

The unique quilt of systems at each bank brings its own issues, of course. While some of the disruptive startups are working around banks, many see their future as intertwined with the existing system. They need banks to thrive, but building scale is difficult when each partnership requires the company to build around the bank's varied infrastructure.

Standard Treasury, a startup that sought to help banks open up their APIs to developers, sold its intellectual property to Silicon Valley Bank in August, with its founders joining the bank to help the tech-focused institution help it create an API channel for its customers to tailor their

interaction with the bank. At the time, Bruce Wallace, chief operations officer of SVB, said the founders of Standard Treasury sought a partnership after they realized that each bank would have needed a highly involved integration and plans to start their own bank fizzled because of capital.

Bradley Leimer, head of innovation at Santander Bank, says that Standard Treasury's partnership with SVB is an example of what is likely to happen as a result of the industry's varied reliance on old systems. Building a critical mass within the industry is too hard given the disparity in systems, so some startups see a partnership or a sale to a tech savvy bank as the path to take. They may have set out to change the industry, but end up deciding to change one bank.

"The startups can't go from bank to bank to bank if each one is a year's worth of work. How are you going to scale that?" Leimer said. "You're going to see more startups make a broad pitch at solving one problem and have an exit strategy that involves one bank."

But it doesn't have to be that way, said Hans Tesselaar, executive director at the Banking Industry Architecture Network, an international organization of banks and vendors with a mission of getting the banking industry globally to set standards for a flexible architecture. It believes such a system would make innovation easier and the costs of technology significantly less. So far, 24 banks around the globe have joined the organization with PNC Financial Services, First Niagara and Discover making up its U.S. bank membership.

The reliance on old systems is "more of a blockage for innovation than an enabler," Tesselaar said.

Eric Donnelly, chief enterprise architect at PNC, says the Pittsburgh-based company joined because it believes that the industry's efforts to modernize would be aided by standardization.

"American banks like to think we are unique and special, but so many of our processes just aren't. Of course there are the differentiators, but a lot of commodity capabilities have limited value as proprietary things," Donnelly said. "There is value in standardizing and there is significant value in modernizing. That's the problem with being disruption proof — the unfortunate side effect is that it limits the ability for banks to modernize."

Boskovich also said that she'd like to see U.S. banking move to an industry standard where software companies and other fintech companies wouldn't have to treat each job as consultative. The right place to be, she said, might be where software is 75% to 80% out-of-the-box functional, with the rest being customized. She doubts the industry would want to ever push it much higher.

"They'll always want some level of customization, they are still looking for a leading edge where they can find one," Boskovich said. "They are looking for anything that will keep them fresh and relevant."